

## Parental Involvement in Active Transport to School Initiatives: A Multi-Site Case Study

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### ABSTRACT

**Background:** Increasing physical activity in youth is a recommended approach to curbing the childhood obesity epidemic. One way to help increase children's daily activity is to promote active transportation to and from school (ATS). **Purpose:** The purpose of this case study was to explore parental perception of, and participation in, ATS initiatives. **Methods:** This study is part of a larger project on ATS initiatives conducted by the Physical Activity Policy Research Network. Sixty-nine key informants, including 10 parents, were interviewed at nine diverse elementary schools being studied for their ATS policies. A standard interview guide was used. The interviews were audio-recorded, transcribed, and analyzed. **Results:** Analysis revealed that parental support was a necessary component for ATS success. The parents' roles varied greatly. Most parents chose to become involved in ATS for a specific reason (e.g., promoting health). The parents and other key informants interviewed expressed participation benefits such as promoting healthy behaviors, increasing social opportunities, promoting neighborhood awareness, and fostering community improvement. Barriers to participation included lack of time, language barriers, and preference for auto travel. Parents also had safety concerns about ATS. **Discussion:** Parents can be valuable resources in school ATS programs, as noted by parents and key informants. Their level of involvement can vary from coordinating a program to leading a walking group; whatever the case, parental participation facilitates a successful initiative. **Translation to Health Education Practice:** ATS initiatives provide a way for parents to become involved in a school program that has personal health, social, and community benefits.

### BACKGROUND

Opportunities for children to be physically active are becoming scarce. With the reduction of physical education and recess programs in schools<sup>1,2</sup> and the increasing popularity of sedentary activities such as television viewing and videogames, children are becoming less physically active.<sup>3</sup> Moreover, research shows that childhood obesity is reaching epidemic proportions in the United States. The prevalence of obesity in children, defined as a body mass index at or above the 95th percentile for age and gender, has nearly quadrupled over the past 30 years.<sup>4</sup> Similarly, the prevalence of overweight among children and adolescents

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has increased from 11% to 16%.<sup>5</sup> Physical inactivity contributes to these conditions. Despite evidence supporting the benefits of physical activity,<sup>6,7</sup> however, 64% of high school students do not meet recommended physical activity guidelines, and 10% are sedentary.<sup>3</sup> Although 65 percent of adolescents participate in adequate levels of *vigorous* physical activity, the proportion who participate in adequate levels of *moderate* activity is only 25%.<sup>8</sup>

One strategy that shows promise as a way to increase physical activity among youths is the promotion of active modes of transportation (e.g., walking and bicycling) to and from school.<sup>9</sup> National transportation surveys show that walking and bicycling to school dropped from 41% in 1969 to only 13% in 2001,<sup>10</sup> but efforts are underway across the country to reverse this trend. Programs or initiatives to promote active transport to and from school (ATS) are increasing in number, especially due to national funding from the Department of Transportation's Safe Routes to School Program (SRTS). This legislation provides funding, for the first time, to state transportation departments to create and administer SRTS programs that allow communities to compete for funding for local SRTS projects.<sup>11</sup> It makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school.

Although funding may make some facets of an ATS initiative easier, the initiatives still require collaboration from many different entities. To be successful, ATS needs support from school personnel, community members, local community government representatives, and, perhaps most important, parents. Parents decide whether or not their children walk or bike to school. Parents must not only support the program, they must also become involved whenever possible, by participating or volunteering.

Parental involvement in schools has been studied for decades. Most of the literature focuses on involvement directly related to the education of children, such as attending

parent-teacher conferences, being classroom volunteers, or interactively communicating with school personnel. An overview of the literature indicates that several factors influence a parent's decision to become involved in school. Helping the children succeed in school, life-context variables (e.g., time and energy), and perception of invitations for involvement all play a role.<sup>12</sup> Fuerstein<sup>13</sup> reported that volunteering is influenced by proactive communication by the school. Other research indicates that one of the main barriers to volunteering at school is lack of time.<sup>9,12,14,15</sup>

Studying parental involvement in ATS initiatives is especially important because it may influence the outcome of the initiatives in several ways. Parental attitudes about ATS reflected at home may affect the child's attitudes toward walking and biking to school. And since parents often organize, run, and staff ATS initiatives, the nature of their involvement is particularly crucial.

## PURPOSE

The purpose of this article is to identify and describe factors related to parental involvement with ATS initiatives. Because parents may be a key influence in the outcome of ATS, highlighting factors that act as barriers or enablers to involvement can be useful to future ATS initiatives. This study was conducted as an activity of the Physical Activity Policy Research Network (PAPRN), a thematic research network funded by the Centers for Disease Control and Prevention since 2004. It is made up of researchers from nine Prevention Research Centers (PRC), one affiliate center, and various partners. One goal of the PAPRN is to study the effectiveness of policies related to increasing physical activity in communities.

## METHODS

This paper is part of a larger study on policies related to ATS. Detailed information on the case study methodology used in the Active Transport to School Study has been reported elsewhere<sup>16</sup> and is summarized here. Nine elementary schools were selected for participation, each with an integrated

ATS initiative or program. The schools were located in various regions of the country and represented racial/ethnic and socioeconomic diversity. Characteristics of the schools are listed in Table 1.

This case study was guided by interviews with people from the schools and their surrounding communities who were involved in the ATS initiatives and had potentially unique insights into the programs. These key informants included parent representatives, physical education teachers, principals, local community organizers, school officials, city officials, and public safety representatives.

## Interview Guide Development

Questions for each interview were developed by the research team using past research,<sup>17-20</sup> current ATS information,<sup>10</sup> and consideration of the project goals. A list of core questions was developed and used for all interviews, but the interview guides were tailored to each key informant group by adding questions that specifically addressed their roles. Questions for parents concerned information about the initiative, their role in the program, their perceptions of the program's benefits and challenges, and related items. Questions for the other key informants were similar but specific to their role in the initiative. The full interview guide is available online (<http://prc.slu.edu/paprn.htm>). Parents were represented at eight of the nine schools studied. Two parents were interviewed at two of the sites.

## Data Collection

After researchers at each site received institutional review board approval, members of the research team made initial contact with a local coordinator involved with each ATS initiative. This person identified individuals involved in ATS in the school and community who would be good sources of information for the study. Data was collected from October 2005 to March 2006. Sixty-six interviews were conducted in person and audio-recorded, and three interviews were conducted by telephone. One of the interviews was conducted in Oromo (an African language), and one in Spanish; the remaining 67 were in English.

**Table 1. Characteristics of ATS Schools Studied**

State	Setting	No. of students	% White	% Black	% Asian	% Hispanic	% F/R *
MO	Suburban	344	58	25	13	4.5	36
MA	Suburban	319	68.3	8.2	14.4	7.5	32.6
CA	Suburban	722	2	15	8	75	100
WA	Urban	389	7	45	27	18	91
SC	Urban	247	4	92	**	**	96
SC	Suburban	509	8	81	**	**	93
NC	Urban	319	<1	80	0	19	88
NC	Rural	712	73	23	<1	2	70
CO	Suburban	463	94	0	2	1	14

\* Percentage of students receiving free or reduced price lunch

\*\* Not available

Note: Figures do not add up to 100% because the “other” category for race/ethnicity is not reported here.

### Data Analysis

Each taped interview was professionally transcribed. Data was analyzed with qualitative methods such as those outlined by Strauss and Corbin.<sup>21</sup> Transcripts were analyzed using a common codebook that the research team had developed based on categories determined in advance. Since the focus of the study was parents, the transcripts of parent interviews were grouped in a subset and coded. As mentioned previously, the interview guides were tailored to participants' individual roles in the initiatives, so the other key informants were not asked specifically about parental involvement. To analyze these non-parent transcripts, computerized searches were used to locate phrases or passages containing the word “parent”; these hits were then coded. Reliability checks on 5% of the non-parent interviews found that all parent-related content was accounted for with the key term search.

Four researchers coded and analyzed interviews for content, pattern, and reliability. The researchers worked in groups of two to make sure that coding was reliable and consistent. Content analysis involved extraction of actual phrases used by respondents that

were reflective of core concepts expressed in the interviews. Patterns were first determined independently by each investigator by reading through the content and identifying recurring ideas. The four members of the analysis team then shared their patterns. When there were discrepancies in interpretation, the team members discussed their rationale and, through consensus, agreed on a single set of codes. Coded comments were synthesized into overall themes, and these themes were then further subdivided and categorized.

### RESULTS

Eight main themes and several sub-themes emerged from the analysis, as shown in Table 2 and described in the following paragraphs. The results highlight the importance of parents' involvement in ATS, their roles in such initiatives, their contribution to program success, and barriers to their participation. Information from the non-parent interviews showed that parental involvement was divided into two distinct categories: support for children walking and biking to school and volunteering.

#### Support for ATS

Support for ATS behavior came with

awareness and education. Some of the schools had parents who were already knowledgeable about the facets of walk-to-school programs:

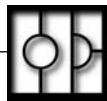
“So they have a bunch of parents who are already tuned into some of these issues, and these parent groups helped spread the word about some of the benefits.”

Other schools began by educating parents on the positive aspects of ATS. Key informants reported that parents who struggled financially or had language barriers may not have been aware of ATS. It was noted that increasing awareness of transportation choices was the first step:

“There was quite an effort with the parent groups to get them to accept the idea that walking to school is a good thing and a safe thing.”

“It was a different group of kids economically, and so parents probably weren't thinking about those things as much as how to get enough money to make it through the week.”

Most key informants noted parental



**Table 2. Parental Involvement Themes Emerging from Interview Data**

Main Theme	Sub-Themes
Parental involvement in ATS initiatives	<ul style="list-style-type: none"><li>▪ Support for ATS activities</li><li>▪ Volunteering viewed as critical</li></ul>
Roles played by parents in ATS initiatives	<ul style="list-style-type: none"><li>▪ Coordinator</li><li>▪ Volunteer</li></ul>
Parents' motivation for participation	<ul style="list-style-type: none"><li>▪ Already actively involved at the school</li><li>▪ Safety concerns</li><li>▪ Desire to promote health</li><li>▪ Neighborhood awareness</li></ul>
Perceived benefits of involvement in ATS initiatives	<ul style="list-style-type: none"><li>▪ Health benefits</li><li>▪ Social benefits</li><li>▪ Community benefits</li></ul>
Parents' perceived barriers to participation	<ul style="list-style-type: none"><li>▪ Lack of time</li><li>▪ Preference for auto travel</li><li>▪ Lack of school support</li></ul>
Parental concerns with ATS initiatives	<ul style="list-style-type: none"><li>▪ Safety</li><li>▪ Culture</li></ul>
Views on collaboration	<ul style="list-style-type: none"><li>▪ School personnel</li><li>▪ Community groups</li></ul>
Perceived success of ATS initiatives	<ul style="list-style-type: none"><li>▪ Evaluation</li></ul>

involvement in the form of volunteering as one of the most important aspects of a successful ATS initiative:

“The acceptance of a walk-to-school program is entirely dependent on the initiative taken by the parents and the school.”

Parents were viewed as a major resource for administering a successful ATS initiative. From serving as walking-group leaders to handling donations or logistics, parents were seen as vital participants at all schools studied. Even without much funding, it was the volunteer efforts of parents that kept many of the programs operating. It was noted, however, that parents usually do not organize themselves into such collective efforts. They need a “champion” to spearhead the initiative:

“I think for this work, someone needs to be in charge. I don’t think parents will

just voluntarily organize themselves to have their kids walk to school.”

Accordingly, some initiatives had paid leaders, while others had volunteer leaders. Recruiting parent champions helped in organizing parent volunteers and working with the schools and community to start up the ATS initiatives and make them run smoothly.

#### *Specific Roles Played by Parents*

Parents in this study cited varied roles in ATS initiatives. Five of the parents were program leaders. They had a passion for active transport and used that passion to help develop a school initiative. They also worked with community groups and school personnel to implement the initiative. Three of the parents interviewed had paid positions, though their pay was relatively small (e.g., \$300 per school year). One parent was an elementary school liaison for a local advocacy group in addition to being a parent

volunteer at the school studied. Others were walking-group leaders or just helped out in whatever capacity needed, from soliciting other parental support to buying snacks or keeping track of participation.

Because of the potential for overusing eager volunteers, several of the parents indicated that they were careful in choosing their volunteer projects at the schools. With limited time available, parents chose to volunteer in projects that they saw as important and that fit with their lifestyle:

“I pick and chose my involvement. I am not on the PTO Board. This is one of my major pieces of volunteering at the school.”

Other parents reported that volunteering with ATS initiatives was not time intensive, and that it was therefore an attractive volunteering option. Walking-group leaders were expected to volunteer for usually less than an hour at a time and only on Walk-to-School Days.



"We run it every Wednesday from 8:00 to 8:25. Volunteers love it because it's a really short type of volunteer time."

The other key informants interviewed were well aware of time constraints for parent volunteers. They mentioned that the annual Walk-To-School Days were a good way to get parents involved. They could see the benefits of ATS during this one-day event and were more likely to promote the behavior throughout the year.

### *Parent's Motivation for Participating*

The parents in this study reported being involved with ATS for several reasons. First, five of the parents interviewed were already involved in the school through the parent-teacher organizations or other volunteer programs. Because of their visibility in the schools, these parents were also encouraged to participate in the ATS initiative. Several of the parents interviewed mentioned that with funding and program cuts, parent participation in the school (not just ATS programs) became essential:

"And I am always saying to them that we have to help the school. If we don't help and we are the parents, then who is going to come to help?"

Four of the parents reported a specific purpose for getting involved with ATS. For one parent, it was to support walking to school so her child did not have to be subjected to an unsafe, unruly bus ride:

"I don't like sending the kids on buses. They talk nonsense on the buses and sometimes they fight each other."

Other parents perceived active transportation as a form of health promotion. They viewed ATS initiatives as a way to improve the problem of increasingly sedentary and overweight youths:

"I just think it's really important that families and kids realize that the benefits of walking or any kind of physical activity built into your daily routine is really

important. We've become too sedentary. We go watch TV while we eat breakfast, go sit in our cars, then sit in classrooms, come home and play on the computer. It's not working."

For one parent in particular, it was a way to help her child get more physical activity and lose weight. Two of the parents reported that they became involved for social communication either with the school or with their children.

The parents also stated several reasons why other parents volunteered in the ATS programs, with safety being mentioned most often. The parents volunteered as crossing guards and walking-group leaders in order to ensure the safety of the children who walked or bicycled to school:

"There was an active crossing guard program, and parents for years have just volunteered on a daily basis."

Another reason for parental participation was the contribution to the feeling of community. Bringing people out together in a community is a way to promote socialization and communication. Parents and other key informants reported a sense of community pride when all the kids are out walking to school:

"They just love it when it's that time of the morning when everybody's walking across the street and up the path."

Parents also stated that they wanted their children to know their neighborhoods better. By doing so, they were promoting their safety. In addition to knowing the safest routes to school, the children also learned how to cross at crosswalks and other important pedestrian safety rules. Most of the ATS initiatives promoted parent-led walking groups. The parents felt that this added to the safety of the program, especially with younger children:

"I'm constantly reminding them about safety issues. I'll say, 'Did you notice that the driver did not stop at the corner?'"

That's why you always have to stop and look."

Parents also reported that by walking, children get to know their neighbors, which can also serve a safety purpose:

"You get to know the neighbors as you walk through. If there ever were a problem like a kid being followed home, he would know that Mrs. Smith lives in that house. I can knock on her door if I am scared because someone is following me."

The parent volunteers also saw the ATS initiative as a chance to get some exercise for themselves and be a good role model for the children:

"That's actually getting [the adults] healthy and having our kids safe. I refuse to drive my kids down the street. They walk. And if it's raining, we walk."

### *Health Benefits*

Among the many reported benefits of ATS were perceived health gains. Parents reported that one of the reasons they participated in the initiative was to reap the physical and mental health benefits of walking or bicycling to school. They noted that by promoting physical activity in their children's daily lives, they were building lifetime healthy habits:

"Walking and biking are activities that people can do throughout their lives, [and] it starts young."

Other key informants also realized that parents were concerned about healthy living and promoting healthful behaviors. They mentioned using this parental concern as a platform for promoting ATS.

Another benefit of participation for parents was weight loss. Weight loss for both parents and children who walked was mentioned as an outcome of ATS initiatives:

"He was a chunky little boy. I had put on a few pounds. I had exercised, but



nothing on a regular basis. Then I told my son that we are going to have to start walking.”

“For our own kids to continue the behaviors we’ve taught them, they have to see that other people do it too.”

Another benefit of walking reported by the parents and other key informants was the energy release that walking to school allowed. They reported that giving the kids a chance to get fresh air and expend energy helped them be more focused in school, and more receptive to sitting and learning:

“They are ready to soak up teaching. I see that with discipline problems. So many kids do so much better if they have done some exercise before they get here.”

“The teachers have said we can tell when the kids walk in the morning because they are much calmer. They’ve already got the main energy out for the day.”

### **Social Benefits**

The parents and others interviewed perceived a social benefit of participating in walk-to-school initiatives:

“I like the kids. When the kids come to walk, everybody visits and makes more friends. And we talk with the kids, all of the kids.”

Parents got a chance to meet students, other parents, and school team members. ATS involvement was seen as a way to get parents involved at the school in a different way than just going to PTA meetings. This helped in facilitating communication on matters other than walking to school. This was especially beneficial to one parent who could not speak English. Volunteering with the walk-to-school initiative helped her connect with the school and resources that she and her children needed.

Parents also reported quality communication time with their children during the walks to school. In addition to anecdotes from parents themselves, several non-parent key informant interviews noted this devel-

opment as well. With busy lifestyles and so many commitments outside of school coupled with electronic distractions, quality time with children was welcomed:

“He would tell me different stories. I would hear stories about friends. He didn’t want anybody walking with us because that was our time.”

### **Community Benefits**

Several parents and key informants commented that the ATS initiatives made their communities a better place. Adults and children got to know people in their community, which in turn helped them feel connected:

“There’s such a huge benefit to building a community when kids are walking to school. It connects the parents, it connects the kids. The kids know how to get home, they know how to get around, and the more we can do the better.”

Not only did the initiatives get more people out and talking with one another, but they also facilitated community improvements. Parents reported that community members felt as if they had the power to get things done with the group support:

“The parents were coming in for a meeting and couldn’t pass through [the sidewalks] because of all the trash there. We always said, ‘I wish they would fix these sidewalks,’ and all of a sudden, they began to do it.”

Parental involvement also facilitated the understanding that walking or bicycling can be a less costly form of transportation, improving the community and helping the environment by reducing the number of cars on the road:

“There is the physical benefit, but also getting them in the habit of, in the future, saving money on gas.”

Three of the parents reported that ATS volunteers were often the ones who helped

get other community improvement projects started. One parent spoke of initiatives that should have been started and implemented by city council but were instead started by parents and other community members. Such initiatives included repair of sidewalks and crosswalks, as well as waste removal.

### **Parents’ Perceived Barriers to Participation**

The parents and other key informants noted that lack of time was the most common reason for lack of parental participation. Parents, especially in lower socioeconomic areas, may work two jobs. Demanding work schedules and time constraints left little room for participating in ATS:

“Parents just don’t have time to walk their kids to school, walk back, then go to work.”

Although this reasoning is often legitimate, some people interviewed found it to be more of a lack of priority than a lack of time:

“I think a lot of parents are just lazy. So many parents work and it’s just more convenient to drop their kids off.”

One of the parents interviewed worked full time but was still able to volunteer because of a flex-time policy at work. She reported being as busy as everyone else but still able to make time to volunteer.

Another factor is the busy nature of many families’ lifestyles. With the societal emphasis on success in both academics and athletics, parents often try to give their children every advantage possible. This translates to many commitments during non-school hours:

“Studies keep coming out that if your kids do this and this, they’ll be the best student. And you know we all want our kids to be the best student, so there is not a free moment in life.”

“Parents become a taxi service.”

Another barrier to participation reported at two study sites was lack of fluency in English. Schools with diverse populations often have various racial and ethnic groups



represented. If the parents do not speak English, they may have a hard time participating without someone who speaks their native language.

A cultural norm of preferring automobile travel over walking or other non-motorized travel was also reported as a barrier to participation. People interviewed indicated that many parents in the school community are sedentary themselves and would rather drive than walk to school. Even parents who do exercise sometimes overlook the option of active transportation:

"I see people driving their kids to school, dropping their kids off to go to the gym to walk on the treadmill."

Another barrier to participation for some parents was the lack of school support for the ATS initiatives. For some sites studied, school involvement and support were great; for others, the schools tolerated the program but were not very involved in it. Interviewees noted that the lack of school involvement may have been attributable to already overworked teachers and full schedules. Without school support, key informants reported that it made recruiting parent volunteers more difficult:

"A parent who is trying to run a program at a different school does not have a supportive principal, and it makes all the difference in the world."

Interestingly, some perceived barriers seemed to be overcome by guilt. Certain interviewees spoke of parents who felt guilty for not participating at all or enough. For some, this guilt forced them to push aside whatever barriers they might have and let their children walk to school:

"They feel guilty when they drive by and sometimes the parents will actually stop and let their kids out so they can walk with the rest of the kids."

### **Parental Concerns with ATS**

The most frequently mentioned concern was safety. First, parents as well as other key

informants at all sites mentioned the concern of safety from strangers. With highly publicized abductions, parents fear that their children are at risk:

"I think the culture that it's just not safe to let your child walk to school is huge."

"Even though we haven't had a child-napping in this area, as a parent you do worry about your child getting there okay."

All programs promoted parent-led walking groups to address this concern. Chaperones added a great dimension to many of the ATS initiatives. Many of the group leaders were able to engage the children in storytelling and learning on their way to school.

Another safety concern was traffic. Busy streets and distracted motorists are a cause for worry. Without continuous sidewalks or crosswalks with crossing guards, some parents were hesitant to let their children (especially younger children) walk or bike to school.

### **Views on Collaboration**

Parents in this study reported that ATS initiatives required teamwork. Not only did parents have to work together with quality leadership, they also had to work with other organizations to make the initiative a success. In some initiatives, parents were required to work with governmental agency representatives such as state SRTS coordinators. Other programs received funding from government or private health agencies. Three of the initiatives studied were implemented with the help of advocacy groups. Local businesses and community organizations were also involved. Part of the role of the parents was to communicate with these organizations and make the best use of available resources. The parents solicited donations from organizations and helped coordinate meetings with organization representatives and plan events. Good communication skills were reported as being essential to parent volunteers:

"I worked with AAA. They gave us great educational materials."

"I worked with [the] hospital to allow us to use their parking lot."

### **Perceived Success of ATS Initiatives**

All parents interviewed saw their initiative as successful, although the degree and measures of success varied by site. Several sites used participation as the primary measure. For these schools, the parents interviewed had concrete numbers to demonstrate success:

"Our stated goal was 75% of students getting to school without a car. We had 75% participation in November."

For other sites, the measures of success included environmental improvements such as cleaning up hazards or infrastructure changes. And for others, success was demonstrated in the collaboration and teamwork among parents, school personnel, and the community. Several of those interviewed mentioned that the level of support from the schools contributed to the success of the initiative. If the principal and teachers supported the program, it was easier to implement.

Parents also saw success in local culture change. Several parents reported that the evolution of ATS initiatives brought about acceptance of active forms of transportation:

"We definitely see more kids walking now [that] they know it is okay. A lot of people wanted rides, not just because they were lazy, but because it was the norm."

"It's helping us get out of the car culture."

Parents and key informants also noted that success depends on a good volunteer base. Parent volunteers usually are not permanent. Opportunities change and children grow up and change schools, making most parents temporary resources. Having many volunteers that can substitute when needed is essential:

"One of the things that has been incredibly effective is how many people [the



principal] got involved. If someone drops out or their kid graduates, there's an infrastructure that keeps up the momentum and carries on."

## DISCUSSION

These findings provide some insight into parental involvement with ATS. Views on parental involvement in such initiatives were similar among the parents interviewed as well as the other key informants. Both groups indicated that parental support and participation were necessary for success. Parents had various participatory roles, and each required different levels of time and commitment that seemed to match the parents' availability and interest.

There were many perceived benefits of participating in ATS initiatives. Participants indicated that encouraging children to be physically active is an important aspect of their participation, one that involved both providing assistance to implement the program and acting as a walking role model. These findings align with a recent Institutes of Medicine report that outlined strategies for preventing childhood obesity.<sup>4</sup> The report's recommendations for parents included encouraging and supporting regular physical activity as well as serving as a positive role model with regard to physical activity behaviors.<sup>4</sup> Parents and key informants also mentioned that being involved with ATS initiatives had a social benefit by giving them an opportunity for quality communication time with their own children as well as their friends. Research shows that positive communication between parents and their children greatly helps young people to establish individual values and make healthy decisions.<sup>3</sup> In addition, community change often begins with grass roots programming,<sup>22</sup> and participants in this study reported that their communities benefited from investment in ATS initiatives. Whether the change was less traffic, better sidewalks, or more neighborhood awareness, the improvements were seen as positive aspects of participation in ATS.

Several barriers to parental participation were noted. Interviewees reported that when

they tried to recruit other parent volunteers, they found that many lacked the time to participate. These findings reflect a 1998 U.S. Department of Education survey on parental involvement in schools.<sup>15</sup> When given a list of concerns that might impede such involvement, schools were most likely to cite parents' lack of time as a barrier. Another barrier was language. Those interviewed reported that in schools with diverse populations and acculturation levels, parents who did not speak English were less likely to participate in ATS initiatives. This is also supported in the literature. Several reports found that parents from English-speaking homes, even when poverty level was taken into account, were more likely than parents from Spanish-speaking homes to be involved with school activities.<sup>23-25</sup>

The literature has also reported safety concerns as a major barrier to ATS.<sup>9,26,27</sup> The parents interviewed for this study noted that other parents often did not let their children participate in ATS due to safety concerns. Some of these concerns could be addressed more easily than others. For example, most programs did not advocate children walking alone. Having adult-led groups addressed many of the "stranger danger" concerns. However, high speed traffic and/or lack of adequate sidewalks remained concerns even with adult supervision.

Concerns and barriers aside, the parents interviewed for this study perceived the ATS initiatives as successful. This success was defined in many ways, but cultural change was of particular interest. Encouraging communities to change their beliefs about active commuting can be challenging, but promoting active involvement of a core group of parents, who, in turn, can recruit other parents may create an impetus for this change.

### *Limitations and Strengths*

One limitation of this study is that it did not evaluate schools without ATS initiatives or schools that could not sustain initiatives once they were begun. Parental perspectives from such schools would be a worthwhile future study. Also, of the 69 interviews completed, only 10 were with parents. Even

though the information in both parent and other key-informant interviews was rich, a greater sample of parents may have provided a broader perspective. Additionally, many of the parents interviewed came recommended by a local coordinator, which may have inadvertently omitted parents who were involved but not connected with the coordinator. Future studies should also include information gathered from non-involved parents to further understanding of barriers to participation.

In spite of these limitations, this study has several strengths as well. First, it is a unique contribution to the current literature because it explores parental involvement in schools specific to ATS initiatives, rather than addressing other, more well-established school programs or volunteer opportunities. Moreover, although the sample of schools was small, it was drawn from diverse regions across the country, which suggests that the common themes and findings are meaningful. Similarly, the parents and other key informants interviewed for the study represented diverse populations and levels of involvement, lending further significance to the findings.

## TRANSLATION TO HEALTH EDUCATION PRACTICE

The importance of parental involvement in the success of ATS programs was indicated by both parents and other key informants who participated in this study. Parental support for ATS included awareness and education, with individual parents serving in positions ranging from program leader to general helper, in both volunteer and paid capacities. Many parents participating in ATS initiatives had already been involved in the schools in other ways.

Participants cited many parental benefits of participating in ATS. Parents and key informants perceived that ATS provided opportunities to: promote health among children and parents alike through walking; teach children to be safe by helping them get to know their community and neighbors better and learn pedestrian rules; and enhance communication between parent and child or parent and school. Participants





reported that walking to school provided an energy release for the children so that they were calmer and more ready to learn upon arriving at school.

Barriers should be considered when designing ATS interventions. In particular, attention should be paid to families' lack of time due to other commitments or work schedules, language barriers, or a preference for auto travel. Parents with children who have before/after-school activities often do not participate in ATS because cars make it easier to transport children from one activity to the next. Safety issues must be addressed as well, including concerns about strangers, traffic, and poor environmental conditions.

Parents and key informants in this study also noted that collaborating with schools and communities is essential for a successful ATS initiative. These participants measured success by good student participation, community collaboration, and progress toward cultural change.

#### **Key Factors to Consider When Planning ATS Initiatives**

- Parental participation in ATS initiatives often begins with education and awareness. Gauge the parental perspective before starting an initiative.
- Know that parents participate for different reasons. Keep these reasons in mind when implementing programs.
- Parents who are passionate about ATS make great leaders and volunteer recruiters. These "champions" are key to successful ATS initiatives.
- A good base of volunteers is needed because parent volunteers are not permanent.
- Although payment of volunteers (especially coordinators) is not always feasible, even very modest payment is appreciated and can encourage participation.
- When recruiting parent volunteers, discuss all the reported benefits of ATS—not just health benefits, but social and community benefits as well.

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#### **REFERENCES**

1. Jarret O. Recess in elementary school: what does the research say? *ERIC Digest*. 2003. Available at: <http://www.ericdigests.org/2003-2/recess.html>.
2. Tunnicliffe K, Chatterton C, Arcari B. How to keep children from being left behind. *Teaching Elementary Physical Education*. 2006;17(5):16-19.
3. Centers for Disease Control and Prevention. *Kids Walk-to-School: Then and Now—Barriers and Solutions*. Department of Health and Human Services, 2006.
4. Institute of Medicine. *Preventing Childhood Obesity: Health in the Balance*. National Academies Press; 2005.
5. Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002. *JAMA*. 2004;291:2847-2850.
6. Heitzler C, Martin S, Duke J, Huhman M. Correlates of physical activity in a national sample of children aged 9-13 years. *Prev Med*. 2006;42(4):254-260.
7. Hills A, King N, Armstrong T. The contribution of physical activity and sedentary behaviours to the growth and development of children and adolescents: implications for overweight and obesity. *Sports Med*. 2007;37:533-545.
8. U.S. Department of Health and Human Services. *Healthy People 2010, Vol. 2. Conference Edition*. Washington, DC: Author; 2000.
9. Timperio A, Crawford D, Telford A, Salmon S. Perceptions about the local neighborhood and walking and cycling among children. *Prev Med*. 2003;38:39-47.
10. McDonald N. Active transportation to school: trends among U.S. schoolchildren, 1969-2001. *Am J Prev Med*. 2007;32:509-516.
11. Federal Highway Administration. Safe routes to school. U.S. Department of Transportation; 2005. Available at: <http://safety.fhwa.dot.gov/saferoutes>.
12. Hoover-Dempsey K, Walker J, Sandler H, et al. Why do parents become involved? research findings and implications. *Elem School J*. 2005;106(2).
13. Furerstein A. School characteristics and parent involvement: influences on participation in children's schools. *J Educ Res*. 2000;94(1):29-39.
14. National Center for Education Statistics. Enrollment and schools. U.S. Department of Education; 2003. Available at: [www.nces.ed.gov/tables](http://www.nces.ed.gov/tables).
15. National Center for Education Statistics. *School and Parental Interaction by Household Language and Poverty Status: 2002-03*. Institute for Education Sciences; 2006 (NCES 2006-086).
16. Eyler A, Brownson R, Doescher M, et al. Policies related to active transport to and from school: a multi-site case study. *Health Education Research*. In review.
17. Carver A, Salmon J, Campbell K, Garnett S, Crawford D. How do perceptions of local neighborhood relate to adolescents' walking and cycling? *Am J Health Promot*. 2005;20(2):139-147.
18. Center for Health Training. *Safe Routes to School: Practice and Promise*. National Highway Traffic Safety Administration; 2003.
19. Centers for Disease Control and Prevention. Barriers to children walking to or from school—United States, 2004. *MMWR*. 2005;54:949-952.
20. Fulton J, Shisler J, Yore M, Caspersen C. Active transportation to school: findings from a national study. *Res Q Exer Sport*. 2005;76(3):352-357.
21. Strauss A, Corbin J. *The Basics of Qualitative Research*. Newbury Park, CA: Sage Publications; 1994.
22. Homan M. *Promoting Community Change: Making It Happen in the Real World*. 4th ed. Boston, MA: Brooks Cole; 2006.
23. McLaughlin JH, Liljestrom A, Lim JH, Meyers D. LEARN: a community study about Latino immigrants and education. *Education and Urban Society*. 2002;34:212-232.
24. National Center for Education Statistics. *Parent Involvement in Children's Education: Efforts by Public Elementary Schools*. Office of Educa-



tional Research and Improvement; 1998.


25. National Coalition for Promoting Physical Activity. Programs vital to America's physical health at risk. Available at: [http://www.ncppa.org/publicaffairspolicy\\_index.asp](http://www.ncppa.org/publicaffairspolicy_index.asp). Accessed

March 25, 2008.

26. Kerr J, Rosenberg D, Sallis JF, Saalens B, Frank L, Conway T. Active commuting to school: Associations with environment and parental concerns. *Med Sci Sports Exerc.* 2006;38:787-794.

27. Timperio A, Ball K, Salmon J, et al. Personal, family, social, and environmental correlates of active commuting to school. *Am J Prev Med.* 2006;30(1):45-51.

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